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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,719	07/03/2003	Daniel M. Ginosar	B-113	4964

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EXAMINER

JOHNSON, EDWARD M

ART UNIT PAPER NUMBER

1754

DATE MAILED: 05/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/613,719

Applicant(s)

GINOSAR ET AL.

Examiner

Edward M. Johnson

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 32-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 and 38-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                   |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-31 and 38-44, in the reply filed on 4/18/06, is acknowledged.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper 5,326,923 in view of Seapan et al., American Chemical Society publication.

Regarding claims 1 and 38, Cooper '923 discloses a method for regenerating catalysts comprising contacting the catalyst with a solvent to remove some portion of the reaction product residue adhering to the solid catalyst to recover the catalyst's initial activity (see abstract). Cooper further discloses the recycling the solvent as appropriate (see column 10, lines 27-28), which an ordinary artisan would remove the fouling agent to perform.

Cooper '923 fails to disclose reaction with at least some of the impurities.

Seapan discloses treatment with supercritical reactive and strong solvents (see page 81, last full paragraph).

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the reaction of Seapan in the regeneration process of Cooper because Cooper refers to Seapan's disclosure of supercritical SO<sub>2</sub> to remove impurities (see Cooper's "Other Publications", and column 5, lines 56-66) and Cooper discloses his treatment with supercritical reactive and strong solvents to break down macromolecular structure (see page 81, last full paragraph).

Regarding claim 2, Cooper '923 discloses hydrocarbon conversion including alkylation (abstract).

Regarding claim 3, Cooper '923 discloses acidic functionality (see column 6, lines 33-34).

Regarding claim 4, Cooper '923 discloses isobutylene (see column 9, line 35).

Regarding claims 5 and 39, Cooper '923 discloses contacting the catalyst with a solvent to remove some portion of the reaction product residue adhering to the solid catalyst to recover the catalyst's initial activity (see abstract).

Regarding claims 6, 11, 21, 40-42, Cooper '923 discloses periodically introducing hydrogen (see column 5, lines 14-17) and purging the system (see Example 1), which would obviously, to one of ordinary skill, at least suggest pumping and reactivating outside the alkylation reactor and recycling after purification so as to separate the catalyst from the system in accordance with the disclosed purging.

Regarding claims 7-9, 18, Cooper '923 discloses isobutane and 750 psig (see column 9, lines 41-43 and 56-57).

Regarding claim 10, Cooper '923 discloses contacting catalyst with benzene (see column 3, lines 64-65; column 5, lines 1-3; and column 10, lines 61-63).

Regarding claims 12-17, 19, 20, 23, 26-31, and 43-44, Seapan discloses treatment with supercritical reactive and strong solvents (see page 81, last full paragraph), which would motivate an ordinary artisan to use an optimum critical temperature and pressure determined through routine experimentation.

Regarding claim 22, Cooper '923 discloses the recycling the solvent as appropriate (see column 10, lines 27-28), which an ordinary artisan would remove the fouling agent to perform.

Regarding claims 24-25, Cooper '923 discloses zeolites and alumina (see abstract and background).

***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-31 and 38-44 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,579,821.

Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art at the time the invention was made to claim a step removing the fouling agent from the fluid and recycling because it would have been within the purview of an ordinarily skilled artisan to save the cost of using brand new reactivating agent by removing the fouling agent and recycling the used agent.

6. Claims 1-31 and 38-44 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-69 of U.S. Patent No. 6,887,813. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art at the time the invention was made to claim a step removing the fouling agent from the fluid and recycling because it would have been within the purview of an ordinarily skilled artisan to save the cost of using brand new reactivating agent by removing the fouling agent and recycling the used agent.

**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-0987.



Edward M. Johnson  
Primary Examiner  
Art Unit 1754

EMJ

May 14, 2006